



# **ON-THE-JOB TRAINING Program Manual**

**June 6, 2015**

## WELCOME – PROGRAM OVERVIEW

The Arizona Department of Transportation (ADOT), a recipient of funds from Federal Highway Administration, is required to establish and implement an On-the-Job Training (OJT) Program pursuant to 23 Code of Federal Regulations Part 230, Subpart A, Appendix B - Training Special Provisions.



The purpose of the OJT Program is to address the underrepresentation of minority, female, veteran and economically disadvantaged individuals in the highway construction trades through the assignment of OJT goals.

By providing on-the-job training, contractors will attract and retain more highly qualified employees and improve productivity and services.

### The goals of the OJT Program are:

- Foster career-oriented long-term relationship between OJT Trainee and Contractor
- Help Trainees reach Journey-Level Status
- Implement processes to track and retain OJT Trainees
- Offer Contractor maximum flexibility and opportunities for fulfilling training requirements
- Take focus off just meeting contract requirement to:
  - Help contractor build and diversify its workforce
  - Provide Trainee with long-term career opportunity

## PARTICIPANT ASSESSMENT

Contractors will review prospective participants for work experience that will make desirable trainees. They will assess prospects who are interested in the OJT program as follows:

- Review Employment Application
- Reference and Background Verification
- One on One Interview with the OJT Manager/Supervisor

## ENTRANCE REQUIREMENTS

Applicants will meet the following minimum qualifications:

- The applicant must be a minimum of eighteen (18) years of age.
- The applicant must be physically capable of performing the essential functions of the OJT program, with or without a reasonable accommodation, and without posing a direct threat to the health and safety of the individual or others.
- Applicants are subject to random, post accident and reasonable suspension drug testing per company policy.
- No applicant will be accepted as a trainee in any classification for which he/she has successfully completed a course leading to journey worker status or in which he/she has been gainfully employed; and
- No applicant will be accepted who has previously been enrolled within the OJT Program for which he/she has successfully completed a course leading to journey worker status.
- A minimum of 1000 hours per year is required for each level in the occupation. The related instruction may be given in a classroom or through trade, industrial or correspondence course of equivalent value education.

## PROBATIONARY PERIODS

All candidates for enrollment in the OJT Program are given a thirty-day probationary period. This period allows the contractor to view the candidate's work habits and attitudes, and allows the candidate to experience the work requirements and supervision style of the contractor. In addition, the Training Coordinator will review the OJT Monthly Progress Reports during the probation period. During the probationary period, each trainee will receive an orientation by a Project Manager and/or Supervisor.

These meetings will include the following:

- The trainee will receive a copy of this manual, which includes the specific training program he/she is completing.
- The starting wage rate and the graduated pay scale of the trainee enrolled in the training program.
- The seasonality of construction work and the adverse weather conditions under which work may occur.
- The necessity that construction workers are punctual and willing to work extra hours in order to remain steadily employed.
- From time to time, the trainee may have an obligation to perform tasks not included in the training program outline.
- Qualities or traits the company considers desirable in its workers, including work ethics.
- Ways in which employees can earn a promotion within the company.
- EEO policy, Affirmative Action Plan, Complaint and Sexual Harassment policies.
- Appropriate PPE for the project. Clothing should be appropriate for the job environment and keep you safe as well as comfortable.
- Basic hours of operation, overtime, weekend expectations.
- Safety, including use of a hard hat; OSHA requirements.
- Whom the trainee will report to (primary supervisor); whom the trainee should call in case he/she will be tardy, absent from work or need to leave the worksite, specifically identifying all policies.
- Disciplinary procedures, termination, and layoff policies.

## SUPERVISION

The trainee will be assigned to a journey worker, supervisor, or other knowledgeable employee who will, on a daily and personal basis, direct, review, and observe the trainee.

## ENROLLMENT

Contractor must complete the OJT Enrollment form for each trainee. Trainees cannot accumulate training hours until after their enrollment has been approved by the ADOT Workforce Development & Compliance Program Manager.

Once the trainee begins the OJT Program, representative will submit certified payrolls through LCPTTracker.

The following topics/issues shall be covered at the contractor's OJT enrollment period and a copy signed by enrollee and supervisor will be submitted to ADOT Workforce Development & Compliance Program Manager with enrollment form:

- The trainee's starting wage rate and the graduated pay scale;
- Basic hours of work, lunch, break;
- Overtime expectations;
- Weekend work expectations;
- The necessity that construction workers are punctual and willing to work extra hours in order to remain steadily employed;

- Necessity of off-site training (related instruction);
- The seasonality of construction work and the adverse weather conditions under which work may occur;
- Contractor's rain policy;
- Who the trainee will report to (primary supervisor);
- Who the trainee should call in case of absence, including phone number(s);
- The procedure and importance of notifying the supervisor if the trainee will be tardy or absent from work or needs to leave the worksite;
- The contractor's EEO policy, Affirmative Action Plan, and Complaint and Sexual Harassment policies;
- Appropriate dress on the job site;
- Disciplinary procedures, termination, and layoff policies of the contractor; and,
- The role of the ADOT/BECO Office in the OJT Program and on the job site.

Once a trainee is enrolled in a training program at a project, if work permits, the individual will be trained until the trainee has completed the approved training program.

At the end of a project, trainees will be transferred to available locations. The training will continue uninterrupted and trainee records will remain current. All trainee hours on any job whether Federal, State or City, etc. will be counted toward the trainee's journeyman status.

## WAGE RATES

Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the trainee-level hourly rate specified in the applicable wage determination. Sample of prevailing wage table:

60% of Prevailing Wage	Begin. Hourly Wage (Level One) Wage + Fringe = Total Wage
65% of Prevailing Wage	500 Hours Worked (Level Two) Wage + Fringe = Total Wage
70% of Prevailing Wage	1,000 Hours Worked (Level Three) Wage + Fringe = Total Wage
75% of Prevailing Wage	1,500 Hours Worked (Level Four) Wage + Fringe = Total Wage
80% of Prevailing Wage	2,000 Hours Worked (Level Five) Wage + Fringe = Total Wage
90% of Prevailing Wage	2,500 Hours Worked (Level Six) Wage + Fringe = Total Wage
100% of Prevailing Wage	3,500 Hours Worked (Level Seven) Wage + Fringe = Total Wage

## FRINGES

Employees subject to prevailing wages, the fringe benefits will be contributed into bona fide funds, plans or programs when applicable.

Every trainee must be paid at not less than the rate specified in the registered program for the trainee's level of progress, expressed as a percentage of the journey level hourly rate, specified in the applicable U. S. Department of Labor wage determination.

- Trainees shall be paid fringe benefits specified with the provisions of the program for the trainee's level of progress, expressed as a percentage of the journey level fringe rate specified in the applicable wage determination.
- Trainees shall be paid full wage determination fringe benefits if the program does not specify a fringe benefit amount.

Or

The amount of fringes paid to the trainee will be based upon the trainee's level of progress expressed as a percentage of the journey level fringe rate specified in the applicable wage determination for the project.

Or

Trainees shall be paid full wage determination fringe benefits specified in the applicable wage determination for the project.

## **WORK HOURS**

The normal workweek is to consist of eight (8) hours per day, five (5) days per week, or that which the journeyman in the craft is working. Additionally, a trainee is eligible to work overtime if the opportunity is presented.

## **TERMINATION FOR JUST CAUSE**

The trainee may be terminated at any time during training for absenteeism, lack of punctuality, accident-proneness, lack of interest, poor attitude, failure to demonstrate his/her ability to perform diligently and faithfully the work of the trade and other pertinent duties as assigned, or failure to conduct him/herself in a creditable, ethical, and moral manner.

As an employee, your participation in the OJT program is not intended and does not constitute a contract of continued employment between the contractor and yourself. In addition, employment with the contractor is "at will" and that either you or your employer may terminate employment at any time, and for any or no reason.

## **CERTIFICATE OF TRAINING PROGRAM COMPLETION**

At the completion of each training level, the trainee will receive a Certificate as a record of his/her accomplishment from the Business Engagement and Compliance Office (BECO)

## **ON THE JOB TRAINING CLASSIFICATIONS**

The OJT Program has been designed to provide training in the skilled construction trade classifications, and to insure the Trainee consistently receives the level and quality of training necessary to perform in their respective skilled trade classification. The training classifications are as follows:

TRAINING CLASSIFICATION	NUMBER OF TRAINING HOURS
CONSTRUCTION CARPENTER TRAINEE	4,000
CONSTRUCTION CEMENT MASON TRAINEE	4,000
CONSTRUCTION LABOR TRAINEE	4,000
PROJECT ENGINEER TRAINEE	6,000
EQUIPMENT OPERATOR TRAINEE	6,000
MECHANIC/EQUIPMENT SERVICE TECHNICIAN	6,000

A typical training program under this classification will consist of the following (as a minimum):

**A. FAMILIARIZATION**

- Safety
- Company Policies
- Materials Selection
- Power and Hand Tools

**B. GENERAL CONSTRUCTION**

- Safety
- Communication
- Curb and Gutter
- Catch Basins
- Sidewalk
- Drainage Structures
- SWPPP
- Pier, Pile and Cap Formwork
- Routine Cleaning and Maintenance of Area, Materials, Tools and Equipment
- Select Materials and Order
- Work with and/or Remove Hazardous Material



**C. INTRODUCTION TO MEASURING TOOLS**

- Mathematics for Construction
- Area and Volume Calculations
- Measuring Rules
- Chaining Tapes
- Elevation Rods
- Transits
- Levels
- Laser Aligner Measuring Elevations

**D. FORM BUILDING AND ERECTION**

- Safety
- Basic Form Design
- Construction of Forms
- Erection and Placement of Forms
- Stripping and Salvage of Forms for Reuse
- Box Culverts, Inlets and Headwall Formwork
- Decking Formwork
- Endwall Formwork
- Parapet and Hand Railing Formwork
- Bridge Falsework
- Shape or Cut Materials to Specified Measurements Using Hand Tools, Machines, or Power Saw

#### E. DEMOLITION

- Remove Damaged or Defective Parts or Sections of Structures
- Repair, Remove or Replace Sections of Structures Using Hand Tools



#### F. STRUCTURAL CONCRETE

- Safety
- Concrete Materials

#### G. GIRDER ERECTION

- Safety
- Placement/Fastening
- Exposure to Pile Driving, Welding, Cutting, and Minimum Heavy Equipment Operation

#### H. CLEAN-UP

- Safety
- General Housekeeping on the Project

#### I. TRAINING

- First-Aid/CPR
- OSHA – An Introduction
- OSHA 10
- OSHA 30
- Trenching and Site Excavation Safety
- Fall Protection
- MSDS/Hazmat
- Traffic Safety
- Jobsite Safety Orientation
- Personal Protective Equipment
- Heat Stress
- Work Zone Traffic Control
- General Housekeeping on the Project
- Power Tool Awareness
- Power Tool Use and Guarding
- Signs, Signals and Barricades
- Accident Prevention Heavy Construction
- Working Around Mobile Equipment
- How To Read A MSDS Sheet
- Employer/Employee Responsibility

#### FEDERAL FUNDED PROJECT

60% LEVEL 1 – 1,000 HOURS	_____	+	_____	FRINGE	=	_____	WAGES
70% LEVEL 2 – 2,000 HOURS	_____	+	_____	FRINGE	=	_____	WAGES
80% LEVEL 3 – 3,000 HOURS	_____	+	_____	FRINGE	=	_____	WAGES
90% LEVEL 4 – 4,000 HOURS	_____	+	_____	FRINGE	=	_____	WAGES



The Trainee will learn and operate many types of construction equipment used on highway and bridge construction projects. The Trainee will perform a combination of tasks on bridge construction projects, usually working in a utility capacity.

A typical training program under this classification will consist of the following (as a minimum):

**A. FAMILIARIZATION**

- Safety
- Materials
- Tools/Equipment
- Public Relations

**B. FORM BUILDING AND ERECTION**

- Safety
- Basic Form Design
- Construction Forms
- Erection and Placement of Forms
- Placement of Reinforcing Steel

**C. GENERAL CONSTRUCTION**

- Screed and Form Setting
- Finishing/Flat Work
- Curb and Gutter Paving
- Grinding/Sacking/Patching
- Machine Operation Sets
- Setting Screeds to Line
- Use of Float and Trowel
- Use of Edger and Jointer
- Chipping of Concrete
- Patching of Concrete
- Rubbing and Brushing of Concrete
- Establishing Grade Lines and Heights
- Setting Expansion Joints
- Curb and Gutter Screeds
- Finishing of Curbs, Gutters, Sidewalks
- Laser or Transit
- Layout of Joints in Special Designs

**D. INTRODUCTION TO MEASURING TOOLS**

- Mathematics for Construction
- Area and Volume Calculations
- Measuring Rules
- Chaining Tapes
- Elevation Rods
- Transits
- Levels
- Laser Aligner Measuring Elevations



**E. STRUCTURAL CONCRETE**

- Safety
- Concrete Materials
- Finishing Concrete/Pouring/Setting
- Patching Concrete
- Concrete Curing
- Bidwell Operation

**F. TRAFFIC CONTROL**

- Safety

**G. STRIPPING/SALVAGE**

- Safety
- Removal/Clearing of Materials

**H. CONCRETE WORK**

- Level Concrete
- Level with Laser or Transit
- Install Reinforcement
- Place Expansion Joints
- Construct and Set Screeds and Forms
- Form a Catch Basin
- Identify Types of Concrete Mix
- Cut, Repair and Resurface Concrete

**I. CONCRETE DEMOLITION**

- Safety
- Tools and Equipment
- Methods of Removal
- Protection of Surroundings

**J. GIRDER ERECTION**

- Safety
- Placement/Fastening
- Exposure to Pile Driving, Welding, Cutting, and Minimum Heavy Equipment Operation

**K. CLEAN-UP**

- Safety
- Materials – Equipment Maintenance
- General Housekeeping

**L. TRAINING – Supplemental**

- First-Aid/CPR
- OSHA – An Introduction
- OSHA 10
- OSHA 10 Road Course
- OSHA 30
- Employer/Employee Responsibility
- Fall Protection Awareness
- Fire Protection Awareness
- Portable Fire Extinguishers



- General Housekeeping on the Project
- Hazard Communication Awareness
- Jobsite Safety Orientation
- Ladder Safety Awareness
- Personal Protective Equipment
- Power Tool Awareness
- Scaffold Safety Awareness
- Soil Analysis and Classifications
- Trenching and Excavation Awareness
- Working Around Mobile Equipment
- 100% Fall Protection
- Accident Prevention Heavy Construction
- Demolition Hazards
- Emergency Action Response
- Fall Protection
- Fall Protection Equipment
- Heat Stress
- How to Read a MSDS
- Material Handling
- Noise and Hearing Protection
- Power Tool Use and Guarding
- Scaffold User Guides
- Sun and Other Outdoor Hazards
- Working Traffic Control
- Trenching and Excavation - Practical Applications
- Competent Person - Excavations
- Competent Person - Fall Protection
- Conduct Tailgate Meetings
- The Competent Person



#### FEDERAL FUNDED PROJECT

<b>60% LEVEL 1 – 1,000 HOURS</b>	<hr/>	+	<hr/>	<b>FRINGE</b>	=	<hr/>	<b>WAGES</b>
<b>70% LEVEL 2 – 2,000 HOURS</b>	<hr/>	+	<hr/>	<b>FRINGE</b>	=	<hr/>	<b>WAGES</b>
<b>80% LEVEL 3 – 3,000 HOURS</b>	<hr/>	+	<hr/>	<b>FRINGE</b>	=	<hr/>	<b>WAGES</b>
<b>90% LEVEL 4 – 4,000 HOURS</b>	<hr/>	+	<hr/>	<b>FRINGE</b>	=	<hr/>	<b>WAGES</b>

The OJT Trainee will perform a combination of tasks on construction projects, usually working in a utility capacity. Individuals will transfer from task to task, as work requires under general supervision of a skilled construction employee.



- Chain Saw
- Chuck Tender
- Compaction Backfill
- Compaction Tool Operator
- Concrete/Asphalt Saw
- Concrete Cutting Torch
- Concrete Mucker
- Concrete Placement
- Concrete Small Tools
- Concrete Vibrating Machine
- Concrete Worker
- Cribber & Shorer
- Cutting Torch Operator
- Drill Doctor/Air Tool Repairman
- Driller-Core, diamond, wagon, air track
- Dumpman Spotter
- Fence Builder
- Fine Grader
- Flagger
- Forsetter
- General/Cleanup
- Guinea Chaser
- Guniting
- Guardrail Installer
- Hazardous Waste Removal
- Hydraulic Jacks and similar tools
- Hydro Mobile
- Jackhammer and/or Pavement Breaker
- Laboring
- Landscape
- Landscape Sprinkler
- Layout of Work
- Lead Abatement
- Operator and Tender of Pneumatic and Electric Tools
- Pest Technician/Weed Control
- AC Dumpman
- Air and Water Washout Nozzleman
- Asbestos Abatement
- Asphalt Laborer
- Asphalt Raker
- Asphalt Raker II
- Bander
- Bio-filter Pressman, Installer, Operator
- Cement Mason Tender

- Pipe Caulker
- Pipe Layer
- Pipe Wrapper
- Pipeline Back-up man
- Pipeline - Grade Setter
- Pipeman - Lead
- Pneumatic Gopher
- Process Piping Installer
- Power Type Concrete Buggy
- Pre-case Manhole Erector
- Preparing Worksite
- Rigger and Signal Man-Pipeline
- Rip rap Stoneman
- Scaffold Builder
- Scaffold Laborer
- Scaler
- Scaler (Driller)
- Scissor Lift
- Tamper (mechanical)
- Traffic Control
- Trencher – hand guided

#### **A. FAMILIARIZATION**

- Safety
- Company Policies/Procedures
- Personal Protective Equipment
- Right-of-Way Lines
- Alignment Stakes, Grade Stakes
- Boundary Markers, Bench Markers and Tie Points
- Tools/Equipment
- Project Set-Up
- Introduction and Observation of Routine Procedures

#### **B. GENERAL CONSTRUCTION**

- Safety
- Back Filling and Compaction
- Curb and Gutter
- Catch Basins
- Concrete Saw
- Demolition and/or Removal
- Drainage Structures
- Erosion Control
- Environmental Hazards
- Hands on Concrete Placement
- Gabions
- Grade Checking
- Hazard Communication Work Processes
- Personal Protective Equipment
- Raker
- Routine Cleaning and Maintenance of Area, Materials, Tools and Equipment
- Screed Checker

- Shoveler
- Tamper and Laser Operation
- Pipe Layer and Manhole Installer
- SWPPP
- Stockpiling and Maintaining Project Tools, Equipment and Materials
- Work Site Safety

#### **C. INTRODUCTION TO MEASURING TOOLS**

- Mathematics for Construction
- Area and Volume Calculations
- Measuring Rules
- Chaining Tapes
- Elevation Rods
- Transits
- Levels
- Laser Aligner Measuring Elevations

#### **D. CONFINED SPACE ENTRY**

- Hazard Recognition
- Entry Program
- Atmospheric Testing
- Controlling Atmospheric Hazards
- Personal Protective Equipment

#### **E. AIR TOOL OPERATION**

- Inspection and Maintenance of Tools and Equipment
- Construction Craft Laborer Air Compressor Operation
- Demonstration of Air Tools

#### **F. SMALL GAS ENGINES**

- Preventive Maintenance and Trouble Shooting
- Operation of Equipment

#### **G. STRUCTURAL CONCRETE**

- Safety
- Concrete Materials
- Concrete – Placing and Finishing

#### **H. HIGHWAY WORK ZONE**

- Flagger Safety
- Traffic Control Safety
- Worksite Safety
- Environmental Hazards and Hazard Communication Work Processes
- Personal Protective Equipment
- Federal and State Regulations
- Equipment Identification
- Use of Hand Signals and Signs
- Control of Traffic through the Project
- Control of Construction Equipment through the Project
- Installing/Removing Traffic Control Devices
- Emergency Procedures

**I. STRIPPING/SALVAGE**

- Safety
- Removal/Clearing of Materials
- Safety Check of Equipment

**J. PIPE INSTALLATION**

- Safety
- Excavation, Shoring and Placement of Material
- Handling Materials
- Fine Grading
- Back Filling and Compaction
- Back Injury Prevention
- Measuring Tools
- Locating Utilities
- Manhole/Catch Basin Construction
- Trenching and Excavation Safety
- Pressure Pipe Laying Techniques
- Gravity Flow Piping Systems
- Works with supervisor in learning and performing all aspects of craft to include but not limited to laying all types of pipe duct, adjust pipe to line and grade, and sealing of pipe joints.
- Actual use of hand level, grade line and laser as applicable.

**K. CLEAN-UP**

- Safety
- General Housekeeping on the Project

**L. TRAINING - Supplemental**

- First-Aid/CPR
- OSHA - An Introduction
- OSHA 10
- OSHA 10 Road Course
- OSHA 30
- Employer/Employee Responsibility
- Fall Protection Awareness
- Fire Protection Awareness
- Portable Fire Extinguishers
- General Housekeeping on the Project
- Hazard Communication Awareness
- Jobsite Safety Orientation
- Ladder Safety Awareness
- Personal Protective Equipment
- Power Tool Awareness
- Scaffold Safety Awareness
- Soil Analysis and Classifications
- Trenching and Excavation Awareness
- Working Around Mobile Equipment
- 100% Fall Protection
- Accident Prevention Heavy Construction
- Demolition Hazards
- Emergency Action Response



- Fall Protection
- Fall Protection Equipment
- Heat Stress
- How to Read a MSDS
- Material Handling
- Noise and Hearing Protection
- Power Tool Use and Guarding
- Scaffold User Guides
- Sun and Other Outdoor Hazards
- Working Traffic Control
- Trenching and Excavation - Practical Applications
- Competent Person - Excavations
- Competent Person - Fall Protection
- Conducting Tailgate Meetings
- The Competent Person

**FEDERAL FUNDED PROJECT**

<b>60% LEVEL 1 – 1,000 HOURS</b>	<u>                    </u>	+	<u>                    </u>	<b>FRINGE</b>	=	<u>                    </u>	<b>WAGES</b>
<b>70% LEVEL 2 – 2,000 HOURS</b>	<u>                    </u>	+	<u>                    </u>	<b>FRINGE</b>	=	<u>                    </u>	<b>WAGES</b>
<b>80% LEVEL 3 – 3,000 HOURS</b>	<u>                    </u>	+	<u>                    </u>	<b>FRINGE</b>	=	<u>                    </u>	<b>WAGES</b>
<b>90% LEVEL 4 – 4,000 HOURS</b>	<u>                    </u>	+	<u>                    </u>	<b>FRINGE</b>	=	<u>                    </u>	<b>WAGES</b>



Individuals will be trained to act in a supervisory capacity coordinating activities of work crews on highway and/or bridge construction projects. The trainee will learn:

- Company policies and procedures
- Jobs and personnel function to gain knowledge of all phases of highway/bridge construction tools and processes including:
  - a) Project Plans and Specifications;
  - b) Topographical Maps and Surveying;
  - c) Scheduling; and
  - d) Programs and Regulations Governing Construction Activities.

#### A. FAMILIARIZATION

- Safety
- Company Policies/Procedures
- Equipment/Material Usage and Maintenance
- Recordkeeping
- Review Plans and Specifications
- Statistical Safety Program
- Measuring Equipment Production
- Project Set-Up



#### B. RESPONSIBILITIES

- Scheduling of all Flag Personnel
- Employee Relations – Recognition and Motivation
- Conflict Resolution
- Public Relations
- Safety and First-Aid
- Weekly Project Audits
- Tool Box Talks Meeting
- Project Review of EEO Meeting
- Job Hazard Analysis
- Crew and Equipment Scheduling
- Review Subcontractors Contracts
- Review Subcontractors Insurance Certificates
- Project Documentation (Weekly Time Sheets, Equipment Time, etc.)

#### C. JOB KNOWLEDGE

- Safety
- Blueprint/Topographical Map/Layout Reading
- Use of Transit
- Planning and Layout of Field Office and Grounds
- Layout and Staking
- Site Preparation
- Ground Condition Analysis and Testing
- Excavation
- Drainage
- Pipe Culverts Planning and Installation
- Sub-Grade Preparation

- Fine Grading
- Erosion Control
- Placement of Paving - Concrete, Asphalt and Base Coarse
- Job Site Cleanup
- Traffic Control
- Contractor Quality Control/Quality Assurance
- Dust Control

#### **D. FORM BUILDING AND ERECTION**



- Safety
- Basic Form Design
- Construction Forms
- Erection and Placement of Forms
- Placement of Reinforcing Steel

#### **E. STRUCTURAL CONCRETE**

- Safety
- Concrete Materials
- Finishing Concrete – Pouring/Setting
- Patching Concrete
- Curing Concrete
- Bidwell Operation
- Form Work
- False Work
- Concrete Quality Control

#### **F. STRIPPING/SALVAGE**

- Safety
- Removal/Clearing of Materials
- Stacking Fundamentals

#### **G. CONCRETE DEMOLITION**

- Safety
- Tools and Equipment
- Methods of Removal
- Protection of Surroundings

#### **H. GIRDER ERECTION**

- Safety
- Placement/Fastening/Securing
- Exposure to Pile Driving, Welding, Cutting, and Minimum Heavy Equipment Operation

#### **I. FAMILIARIZATION OF EQUIPMENT**

- Safety
- Observation of Various Equipment
- Understanding Basic Function and Preparation of Equipment
- Understanding Use of Parts Catalog and Cost/Purchasing of Parts
- Learning Key Parts Required
- Learning Company Purchase, Receipts, Storage and Issuance Procedures

#### **J. EQUIPMENT FUNCTIONS**

- Safety
- Tool Care, Storage and Transportation
- Lubrication – Oil, Air and Fuel Filters, Grease Points – Inspection Techniques to Detect Abnormal Conditions
- Welding and Burning Equipment and Operation of Lathes, Saws, Shapers, Grinders and Presses
- Operation and Service of Fuel Systems
- Hydraulic Systems
- Electronic Systems
- Equipment Operations

#### **K. APPLICATION OF EQUIPMENT TRAINING**

- Preventive Maintenance – Shop and Field
- Corrective Maintenance – Shop and Field
- Order, Receive, and Store Tools and Equipment Under Supervision of Skilled Worker
- Draw, Arrange, and Transport Tools and Materials Under Supervision of Skilled Worker
- Participate in Equipment Preparation and Maintenance Under Supervision of Skilled Worker – Both in the Shop and Field Environments
- Use Tools of the Trade and Perform Related Duties as Required

#### **L. TRAFFIC CONTROL FAMILIARIZATION**

- Safety
- Learning Company Policies and Procedures
- Federal and State Regulations
- Proper Hand and Sign Signaling
- Public Relations
- Recordkeeping

#### **M. CONTROL OF TRAFFIC**



- Knowledge of Proper Equipment and Safe Signing
- Use of Radio Equipment
- Control of Construction Equipment Through Work Area
- Coordination of Activities with Proper Management and Supervisory Personnel
- Daily Start-Up and Shut-Down Involving Safety Equipment
- Maintenance of Adequate Level of Supplies for Daily Use

#### **N. TRAFFIC SIGNAGE FAMILIARIZATION**

- Types of Equipment and Materials
- Maintenance, Operation Limitations and Capabilities
- Fueling, Lubricating and Servicing
- Set-up

#### **O. TRAFFIC CONTROL JOB KNOWLEDGE**

- Placing Concrete Barriers
- Safety and Operating Procedures
- Topographical Map Reading
- Planning and Layout Of Sign Packages
- Excavating, Drainage, and Pipe Laying
- Fence and Guardrail

- Compaction and Backfilling
- Fine Grading and Erosion Control
- Placement of Hot Mix Asphalt and Hot Mix Asphalt Curb
- Cold Planning and Reclaiming
- Removal of Permanent Construction Signs and Job Site Clean-up
- Temporary Pavement Markings

**P. TRAINING - Supplemental**

- EEO Policy
- AAP
- Sexual Harassment Training
- 30 Hour OSHA
- MSHA
- First-Aid/CPR
- SWPPP
- PPE
- Competent Person Trenching and Site Excavation
- Competent Person Fall Protection
- ATSSA Flagger Training
- ATSSA Supervisor Training

**FEDERAL FUNDED PROJECT**

<b>60% LEVEL 1 – 1,000 HOURS</b>	<u>                    </u>	+	<u>                    </u>	<b>FRINGE</b>	=	<u>                    </u>	<b>WAGES</b>
<b>65% LEVEL 2 – 2,000 HOURS</b>	<u>                    </u>	+	<u>                    </u>	<b>FRINGE</b>	=	<u>                    </u>	<b>WAGES</b>
<b>70% LEVEL 3 – 3,000 HOURS</b>	<u>                    </u>	+	<u>                    </u>	<b>FRINGE</b>	=	<u>                    </u>	<b>WAGES</b>
<b>75% LEVEL 4 – 4,000 HOURS</b>	<u>                    </u>	+	<u>                    </u>	<b>FRINGE</b>	=	<u>                    </u>	<b>WAGES</b>
<b>80% LEVEL 5 – 5,000 HOURS</b>	<u>                    </u>	+	<u>                    </u>	<b>FRINGE</b>	=	<u>                    </u>	<b>WAGES</b>
<b>90% LEVEL 6 – 6,000 HOURS</b>	<u>                    </u>	+	<u>                    </u>	<b>FRINGE</b>	=	<u>                    </u>	<b>WAGES</b>

The function of this training program is to provide corridor for the unskilled worker to become part of the permanent workforce. The trainee will learn and operate many types of construction equipment used on highway and bridge construction projects. When this program is completed, the trainee will have achieved a journeyman status. Training and upgrading of minorities and women toward journeyman status is a primary objective of this program. The trainee will be working during the training period on various projects, private and public, Federal and Non-Federal. A typical training program under this classification will consist of the following (as a minimum):

▪ **FAMILIARIZATION**

- Safety
- Fueling/Lubrication/Hydraulic Systems
- Operation of Equipment
- Operation and Maintenance Manual
- Vehicle Capabilities and Limitations
- Materials/Earth Work
- Site Preparation
- Dust Control

▪ **CONSTRUCTION BASICS**

- Safety
- Operation and Maintenance Manual
- Load Charts
- Fueling/Lubrication/Hydraulic Systems
- Equipment Capabilities and Limitations
- Rolling (Compaction/Vibration)
- Trenching/Pipe Laying
- Cut and Fill Ground Elevation Variations
- Backfill/Curbing
- Rigging/Hoisting
- Common Grade Stake Terms and Placement
- Making Adjustments for Proper Depth, Grade and Finish
- Reading Survey Stakes and their Markings



▪ **MOTOR GRADER**

- Operation and Maintenance Manual
- E-Learning DVD
- V-Ditching
- Side Slope Finishing
- Haul Road Grading
- Finish Grading
- Stockpiling
- Site Prep
- Site Clean-up
- Cutting/Leveling
- Accu Grade Equipment

▪ **DOZER**

- Operation and Maintenance Manual
- E-Learning DVD
- Level/Straight Dozing

- Slot Dozing
- Backfilling
- Ripping
- V-Ditching
- Push Load Scrapers
- Tree Stump Removal
- Side Slope Dozing
- Trap Loading
- Slope Building – Up or Down
- Boulder Removal
- Finish Grading
- High Wall Dozing
- Ramp Building
- Stockpiling
- Site Prep
- Accu Grade Equipment
- Establish Drainage
- Push Feed in Pit Hopper
- Six Point Angle Blade Configuration
  
- **BACKHOE/GANNON LOADER**
  - Operation and Maintenance Manual
  - E-Learning DVD
  - Trenching
  - Excavation
  - Lifting
  - Demolition
  - Land Clearing
  - Loading Trucks
  - Back Filling
  - Grading
  - Finish Grading
  - Finding Utilities
  - Finish Straight Walls
  - Concrete Removal
  - Stockpile Material
  - Site Prep
  - Site Clean-up
  - Cutting/Leveling
  - Accu Grade Equipment
  
- **INTEGRATED TOOLS** - Buckets - Standard and Multipurpose, Hammers, Augers, Rippers, Tampers, Rollers, Material Handling, Brooms, Rakes, Asphalt Cutters, Bale Spear, Thumb Attachment, E-Stick
  
- **EXCAVATOR**
  - Operation and Maintenance Manual
  - E-Learning DVD
  - Trenching
  - Truck Loading-Bench/Same Level
  - Lifting
  - Backfill

- Towing
- Ramping
- Mass Excavation
- Demolition
- Forestry
- Mining
- Slope Work - Pulling/Building
- Finishing Straight Walls
- Accu Grade Equipment
- Thumb Attachment
- Pin Grabber Coupler-Bucket, Hammer, Pulverizer, Auger, Shears, Grapple, Magnet
- Wheel Roller, Tamping

#### ▪ **LOADER**

- Operation and Maintenance Manual
- E-Learning DVD
- Face Loading
- Various Types Of Truck Loading
- Load & Carry
- Dozing
- Backfilling
- Shading Pipe
- Trap Loading
- Stockpile Material
- Ramp Building
- Hopper Loading
- Screening Material
- Material Handling Attachments
- Land Clearing
- Payload Control System



#### ▪ **ROLLER**

- Operation And Maintenance Manual
- E-Learning DVD
- Site Prep
- Ramp Building
- Finish Grading
- Slope Building - Up And Down
- Backfilling
- Fill Compaction
- Landfill Construction
- Levee Construction

#### ▪ **SCRAPERS**

- E-Learning DVD
- Operation and Maintenance Manual
- Open Bowl, Auger, Elevating, Push-Pull
- Twin or Single Engine
- Aggregate Mining
- Airport Construction
- Canal Excavation

- Earthfill Dam Building
- Grading
- Highway Construction
- Irrigation System Work
- Land Leveling
- Levee Construction
- Over Burden Removal
- Pond Building
- Railroad Embankment Construction
- Ramp Building
- Reclamation
- Refuse Covering
- Site Prep
- Sloping
- Spoil Removal
- Stockpiling
- Stripping
- Terracing
- Fill Compaction
- Landfill Construction
- Landfill Closure
- Haul Road Maintenance
- Accu Grade Equipment, Laser and G.P.S.
  
- **OPERATION OF EQUIPMENT**
  - Safety
  - Operation and Maintenance Manual
  - Proper Cuts and Fills to the Grade Stakes
  - Load Charts
  - Grading
  - Equipment Capabilities and Limitations
  - Earth Moving
  - Rolling (Compaction/Vibration)
  - Trenching/Pipe Laying
  - Backfill/Curbing
  - Rigging/Hoisting
  - Compaction
  - Minor Repairs and Adjustments
  - Making Adjustments for Proper Depth, Grade and Finish
  - Equipment Fundamentals
  - Rigging Hardware
  
- **HEAVY EQUIPMENT SAFETY**
  - Perform a Walk Around Inspection
  - Mounting and Dismounting
  - Safety Videos and Safe Operation of Equipment
  - Operation and Maintenance Manual
  
- **MAINTENANCE**
  - Safety
  - Operation and Maintenance Manual



- Maintenance of Equipment (Minor Repairs/Parts Replacement)
- Machine Cleanliness
- Performing Maintenance Safely
- Cleaning Vehicle, i.e. Windows, Lights, Cargo Area, Placing Proper Placard on Truck
- Checking and Adding Vehicle Fluid as Necessary
- Basic Fueling

#### ▪ **TRAFFIC CONTROL**

- Safety
- Traffic Control Plan
- Set Up of Lane Closure, Detours and Special Signs
- Public Traffic/Construction Traffic
- Regulations

#### ▪ **PIPE INSTALLATION**

- Pipe Laying
- Operate a Pipe Laser
- Rigging
- How to Recognize Different Types of Pipes and how to Properly Install Pipe
- Install Fittings, Valves, Manholes, Etc.



#### ▪ **TRAINING – Supplemental**

- Defensive Driving
- Crane Safety Basics
- First-Aid/CPR
- Employer/Employee Responsibility
- Fall Protection Awareness
- Fire Protection Awareness
- Portable Fire Extinguishers
- General Housekeeping on the Project
- Hazard Communication Awareness
- Jobsite Safety Orientation
- Ladder Safety Awareness
- Personal Protective Equipment
- Power Tool Awareness
- Rigging
- Scaffold Safety Awareness
- Soil Analysis and Classifications
- Trenching and Excavation Awareness
- Working Around Mobile Equipment
- 100% Fall Protection
- Accident Prevention Heavy Construction
- Demolition Hazards
- Emergency Action Response
- Fall Protection
- Fall Protection Equipment
- Heat Stress
- How to Read a MSDS
- Material Handling
- Noise and Hearing Protection
- Operation and Maintenance Manual - Review

- OSHA – An Introduction
- OSHA 10
- OSHA 10 Road Course
- OSHA 30
- Pre Test/Post Test
- Power Tool Use and Guarding
- Scaffold User Guides
- Skills Lab
- Task List
  - ✓ Start Up and Shut Down Procedures
  - ✓ Safety and Maintenance Inspections
- Sun and Other Outdoor Hazards
- Working Traffic Control
- Trenching and Excavation - Practical Applications
- Competent Person - Excavations
- Competent Person - Fall Protection
- Conducting Tailgate Meetings
- The Competent Person

#### FEDERAL FUNDED PROJECT

<b>60% LEVEL 1 – 1,000 HOURS</b>	<hr/>	+	<hr/>	<b>FRINGE</b>	=	<hr/>	<b>WAGES</b>
<b>70% LEVEL 2 – 2,000 HOURS</b>	<hr/>	+	<hr/>	<b>FRINGE</b>	=	<hr/>	<b>WAGES</b>
<b>80% LEVEL 3 – 3,000 HOURS</b>	<hr/>	+	<hr/>	<b>FRINGE</b>	=	<hr/>	<b>WAGES</b>
<b>90% LEVEL 4 – 4,000 HOURS</b>	<hr/>	+	<hr/>	<b>FRINGE</b>	=	<hr/>	<b>WAGES</b>

All contractors and work sites have their respective work site safety rules. They have their own traffic rules for on-site service or haul roads. As a new operator, you need to review these with your supervisor. Make sure you understand the signs and markings used on the jobsite, especially those relating to underground utilities. Scan the site for overhead danger areas. And ensure that you are aware of any clearance or weight limitations in areas you will be working.

The function of this training program is to provide corridor for the unskilled worker to become part of the workforce. The trainee will learn and operate many types of construction equipment used on highway and bridge construction projects. When this program is completed, the trainee will have achieved a journeyman status. Training and upgrading of minorities and women toward journeyman status is a primary objective of this program. The trainee will be working for the contractor during the training period on various projects, private and public, Federal and Non-Federal. A typical training program under this classification will consist of the following (as a minimum):

**A. FAMILIARIZATION**

- Safety
- Fueling/Lubrication/Hydraulic Systems
- Operation of Equipment
- Operation and Maintenance Manual
- Vehicle Capabilities and Limitations
- Materials/Earth Work
- Site Preparation
- Dust Control

**B. CONSTRUCTION BASICS**

- Safety
- Operation and Maintenance Manual
- Load Charts
- Fueling/Lubrication/Hydraulic Systems
- Equipment Capabilities and Limitations
- Rolling (Compaction/Vibration)
- Trenching/Pipe Laying
- Cut and Fill Ground Elevation Variations
- Backfill/Curbing
- Rigging/Hoisting
- Common Grade Stake Terms and Placement
- Making Adjustments for Proper Depth, Grade and Finish
- Reading Survey Stakes and their Markings

**C. MOTOR GRADER**

- Operation and Maintenance Manual
- E-Learning DVD
- V-Ditching
- Side Slope Finishing
- Haul Road Grading
- Finish Grading
- Stockpiling
- Site Prep
- Site Clean-up
- Cutting/Leveling
- Accu Grade Equipment

#### **D. DOZER**

- Operation and Maintenance Manual
- E-Learning DVD
- Level/Straight Dozing
- Slot Dozing
- Backfilling
- Ripping
- V-Ditching
- Push Load Scrapers
- Tree Stump Removal
- Side Slope Dozing
- Trap Loading
- Slope Building – Up or Down
- Boulder Removal
- Finish Grading
- High Wall Dozing
- Ramp Building
- Stockpiling
- Site Prep
- Accu Grade Equipment
- Establish Drainage
- Push Feed in Pit Hopper
- Six Point Angle Blade Configuration

#### **E. BACKHOE/GANNON LOADER**

- Operation and Maintenance Manual
- E-Learning DVD
- Trenching
- Excavation
- Lifting
- Demolition
- Land Clearing
- Loading Trucks
- Back Filling
- Grading
- Finish Grading
- Finding Utilities
- Finish Straight Walls
- Concrete Removal
- Stockpile Material
- Site Prep
- Site Clean-up
- Cutting/Leveling
- Accu Grade Equipment
- **INTEGRATED TOOLS** - Buckets - Standard and Multipurpose, Hammers, Augers, Rippers, Tampers, Rollers, Material Handling, Brooms, Rakes, Asphalt Cutters, Bale Spear, Thumb Attachment, E-Stick

#### **F. EXCAVATOR (200 HOURS)**

- Operation and Maintenance Manual
- E-Learning DVD
- Trenching

- Truck Loading-Bench/Same Level
- Lifting
- Backfill
- Towing
- Ramping
- Mass Excavation
- Demolition
- Forestry
- Mining
- Slope Work - Pulling/Building
- Finishing Straight Walls
- Accu Grade Equipment
- Thumb Attachment
- Pin Grabber Coupler-Bucket, Hammer, Pulverizer, Auger, Shears, Grapple, Magnet
- Wheel Roller, Tamping

#### **G. LOADER**

- Operation and Maintenance Manual
- E-Learning DVD
- Face Loading
- Various Types Of Truck Loading
- Load & Carry
- Dozing
- Backfilling
- Shading Pipe
- Trap Loading
- Stockpile Material
- Ramp Building
- Hopper Loading
- Screening Material
- Material Handling Attachments
- Land Clearing
- Payload Control System

#### **H. ROLLER**

- Operation And Maintenance Manual
- E-Learning DVD
- Site Prep
- Ramp Building
- Finish Grading
- Slope Building - Up And Down
- Backfilling
- Fill Compaction
- Landfill Construction
- Levee Construction

#### **I. SCRAPERS**

- E-Learning DVD
- Operation and Maintenance Manual
- Open Bowl, Auger, Elevating, Push-Pull
- Twin or Single Engine

- Aggregate Mining
- Airport Construction
- Canal Excavation
- Earthfill Dam Building
- Grading
- Highway Construction
- Irrigation System Work
- Land Leveling
- Levee Construction
- Over Burden Removal
- Pond Building
- Railroad Embankment Construction
- Ramp Building
- Reclamation
- Refuse Covering
- Site Prep
- Sloping
- Spoil Removal
- Stockpiling
- Stripping
- Terracing
- Fill Compaction
- Landfill Construction
- Landfill Closure
- Haul Road Maintenance
- Accu Grade Equipment, Laser and G.P.S.

#### **J. OPERATION OF EQUIPMENT**

- Safety
- Operation and Maintenance Manual
- Proper Cuts and Fills to the Grade Stakes
- Load Charts
- Grading
- Equipment Capabilities and Limitations
- Earth Moving
- Rolling (Compaction/Vibration)
- Trenching/Pipe Laying
- Backfill/Curbing
- Rigging/Hoisting
- Compaction
- Minor Repairs and Adjustments
- Making Adjustments for Proper Depth, Grade and Finish
- Equipment Fundamentals
- Rigging Hardware

#### **K. HEAVY EQUIPMENT SAFETY**

- Perform a Walk Around Inspection
- Mounting and Dismounting
- Safety Videos and Safe Operation of Equipment
- Operation and Maintenance Manual

#### **L. MAINTENANCE**

- Safety
- Operation and Maintenance Manual
- Maintenance of Equipment (Minor Repairs/Parts Replacement)
- Machine Cleanliness
- Performing Maintenance Safely
- Cleaning Vehicle, i.e. Windows, Lights, Cargo Area, Placing Proper Placard on Truck
- Checking and Adding Vehicle Fluid as Necessary
- Basic Fueling

#### **M. TRAFFIC CONTROL**

- Safety
- Traffic Control Plan
- Set Up of Lane Closure, Detours and Special Signs
- Public Traffic/Construction Traffic
- Regulations

#### **N. PIPE INSTALLATION**

- Pipe Laying
- Operate a Pipe Laser
- Rigging
- How to Recognize Different Types of Pipes and how to Properly Install Pipe
- Install Fittings, Valves, Manholes, Etc.

#### **O. TRAINING – Supplemental**

- Defensive Driving
- Crane Safety Basics
- First-Aid/CPR
- Employer/Employee Responsibility
- Fall Protection Awareness
- Fire Protection Awareness
- Portable Fire Extinguishers
- General Housekeeping on the Project
- Hazard Communication Awareness
- Jobsite Safety Orientation
- Ladder Safety Awareness
- Personal Protective Equipment
- Power Tool Awareness
- Rigging
- Scaffold Safety Awareness
- Soil Analysis and Classifications
- Trenching and Excavation Awareness
- Working Around Mobile Equipment
- 100% Fall Protection
- Accident Prevention Heavy Construction
- Demolition Hazards
- Emergency Action Response
- Fall Protection
- Fall Protection Equipment
- Heat Stress
- How to Read a MSDS

- Material Handling
- Noise and Hearing Protection
- Operation and Maintenance Manual - Review
- OSHA – An Introduction
- OSHA 10
- OSHA 10 Road Course
- OSHA 30
- Pre Test/Post Test
- Power Tool Use and Guarding
- Scaffold User Guides
- Skills Lab
- Task List
  - ✓ Start Up and Shut Down Procedures
  - ✓ Safety and Maintenance Inspections
- Sun and Other Outdoor Hazards
- Working Traffic Control
- Trenching and Excavation - Practical Applications
- Competent Person - Excavations
- Competent Person - Fall Protection
- Conducting Tailgate Meetings
- The Competent Person

**FEDERAL FUNDED PROJECT**

<b>60% LEVEL 1 – 1,000 HOURS</b>	<u>          </u>	+	<u>          </u>	<b>FRINGE</b>	=	<u>          </u>	<b>WAGES</b>
<b>70% LEVEL 2 – 2,000 HOURS</b>	<u>          </u>	+	<u>          </u>	<b>FRINGE</b>	=	<u>          </u>	<b>WAGES</b>
<b>80% LEVEL 3 – 3,000 HOURS</b>	<u>          </u>	+	<u>          </u>	<b>FRINGE</b>	=	<u>          </u>	<b>WAGES</b>
<b>90% LEVEL 4 – 4,000 HOURS</b>	<u>          </u>	+	<u>          </u>	<b>FRINGE</b>	=	<u>          </u>	<b>WAGES</b>



## EMPLOYEE ACKNOWLEDGEMENT

I \_\_\_\_\_ understand by signing below, I am acknowledging I have received a copy of the OJT program in which I am currently enrolled. The information within this OJT program was covered, including work hours, reporting supervisor, and weekly reviews during the probation period of 30 days. I further understand that it is my responsibility to review the information contained within this booklet, and if I have any questions, I should direct my questions to the assigned supervisor below.

CONTRACTOR NAME: \_\_\_\_\_

INTERVIEW CONDUCTED BY: \_\_\_\_\_

ORIENTATION TRAINING CONDUCTED BY: \_\_\_\_\_

CLASSIFICATION \_\_\_\_\_ RATE OF PAY: \_\_\_\_\_

ASSIGNED SUPERVISOR: \_\_\_\_\_ CELL PHONE: \_\_\_\_\_

MANAGER: \_\_\_\_\_ CELL PHONE: \_\_\_\_\_

\_\_\_\_\_  
Employee Name (Print)

\_\_\_\_\_  
Employee Number

\_\_\_\_\_  
Employee Signature

\_\_\_\_\_  
Date

By signing this document you acknowledged that you have read the above terms and agree.

**THIS CONTRACTOR IS AN EQUAL OPPORTUNITY EMPLOYER  
AND  
EVALUATES ALL APPLICANTS WITHOUT REGARD TO ANY LEGALLY PROTECTED STATUS**

\_\_\_\_\_  
Contractor Representative (Print)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Contractor Representative Signature